SPECTRUM®

Bay Networks BayStack Hubs Management Module Guide

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Preface

Use this guide as a reference for the Bay Networks BayStack Hub's management software. Before using this guide, you should be familiar with SPECTRUM's functions and navigational techniques as described in the Operations and Administration documentation.

For the purposes of this guide, Bay Networks Baystack Hubs are referred to as "device."

What Is in This Guide

The following outlines the organization of the ***Bay Networks BayStack Hubs Management Module Guide:***

Chapter	Description
Chapter 1 *Introduction*	Describes the device, the management module software, and model types. This chapter also provides information on accessing device-specific views.
Chapter 2 *Device Views*	Describes the Device views representing the device.
Chapter 3 *Configuration Views*	Describes the Configuration views for the device and the network management information provided by the views.
Chapter 4 *Event and Alarm Messages*	Lists and explains the event and alarm messages generated in the Event Log or Alarm Manager for the device.
Chapter 5 *Application Views*	Describes the Application views and application-specific information for this device.

Conventions

This guide uses the following conventions:

- Menu selections and buttons referenced in text appear in **bold**; for example, **Configuration** or **Detail**.
- Button names appear in shadowed boxes when introducing paragraphs describing their use; for example:

- Menu navigation appears in order of selection; for example, **Icon Subviews -> Utilities -> Application**.
- Referenced chapter titles and section headings appear in *italics*.
- Referenced documents appear in ***bold italics***.
- References in blue italics are hypertext links for on-line documents.

Related SPECTRUM Documentation

When using this guide, you should have a clear understanding of SPECTRUM functionality and navigation techniques as described in Operation, Administration, and the following documentation:

Report Generator User's Guide

Getting Started with SPECTRUM for Operators

Getting Started with SPECTRUM for Administrators

How to Manage Your Network with SPECTRUM

Other Related Documentation

Refer to the following documentation for more information on managing TCP/IP-based networks:

Martin, James, Kathleen Kavanagh Chapman, Joe Leben. ***Local Area Networks: Architectures and Implementations***, 2d ed. Englewood Cliffs, NJ: Prentice Hall, 1994.

Rose, Marshall T. ***The Simple Book: An Introduction to Management of TCP/IP-based Internets***. Englewood Cliffs, NJ: Prentice Hall, 1991.

Stallings, William. ***Data and Computer Communications***, 4th ed. New York: Macmillan Publishing Company, 1994.

Tanenbaum, Andrew S. ***Computer Networks***, 3d ed. Englewood Cliffs, NJ: Prentice Hall, 1996.

Chapter 1

Introduction

What Is in This Chapter

This chapter introduces the SPECTRUM management module for Bay Networks Baystacks Hubs. It describes the following:

- Bay Networks BayStack Hubs
- SPECTRUM Support
  - Accessing SPECTRUM Views from the Device Icon
  - Accessing Module-Specific Subviews
- SPECTRUM Views Roadmap

Bay Networks BayStack Hubs

Bay Networks Baystack Hubs are a series of stackable hubs managed through Simple Network Managment Protocol (SNMP) Agents. These devices provide network connectivity, via up to 24 RJ-45 connectors, two media adapter slots, which provide fiber, coaxial, UTP, and AUI interfaces, and network managment capabilitiy, via an NMM (Network Management Module) slot. Table 1-1 provides a list of the supported models and their descriptions.

Table 1-1. Supported Ethernet Hubs.

Model	Description
BayStack10BT-12	10Base-T 12 port chassis with 1 NMM slot and 2 Media Adpater slots.
BayStack10BT-24	10Base-T 24 port chassis with 1 NMM slot and 2 Media Adapter slots.

Table 1-1. Supported Ethernet Hubs. (Continued)

Model	Description
BayStack100BT	100Base-T 12 port chassis with 1 NMM slot and 1 Media Adapter slot.
BayStack100-TX	100Base-TX Media Adapter for the BayStack100BT.
BayStack100-FX	100Base-FX Fiber Media Adapter for the BayStack100BT.
BayStack150	10BaseT 24 port chassis (BayStack10BT-24) - contains 1 NMM built-in, 1 recessed AUI port, and 24 ports.
BayStack151	10BaseT 24 port chassis (BayStack10BT-24) - contains 24 ports and 1 recessed AUI port.
BayStack152	10BaseT 12 port chassis (BayStack10BT-12) - contains 1 NMM built-in, 1 recessed AUI port, and 12 ports.
BayStack153	10BaseT 12 port chassis (BayStack10BT-12) - contains 12 ports and 1 recessed AUI port.

SPECTRUM Support

SPECTRUM management modules enable modeling of a physical device (hubs, routers, etc.) by providing model types. A model type is a template that specifies attributes, actions, and associations for a particular device. These models are graphically represented as icons. The model type names for this management module are HubBaySt10 and HubBaySt100.

Accessing SPECTRUM Views from the Device Icon

The Device icon provides access to SPECTRUM views that display device-specific information. Access these views using double-click zones (Figure 1-1) or Icon Subviews menus (Figure 1-2). To access the Icon Subviews menu as shown in Figure 1-2:

1. Highlight the icon.
2. From the **View** menu, select **Icon Subviews** or click the applicable mouse button (middle or right). Refer to ***Getting Started with SPECTRUM for Operators*** for information on configuring your mouse.

Figure 1-1. Using Double-Click Zones to Access SPECTRUM Views

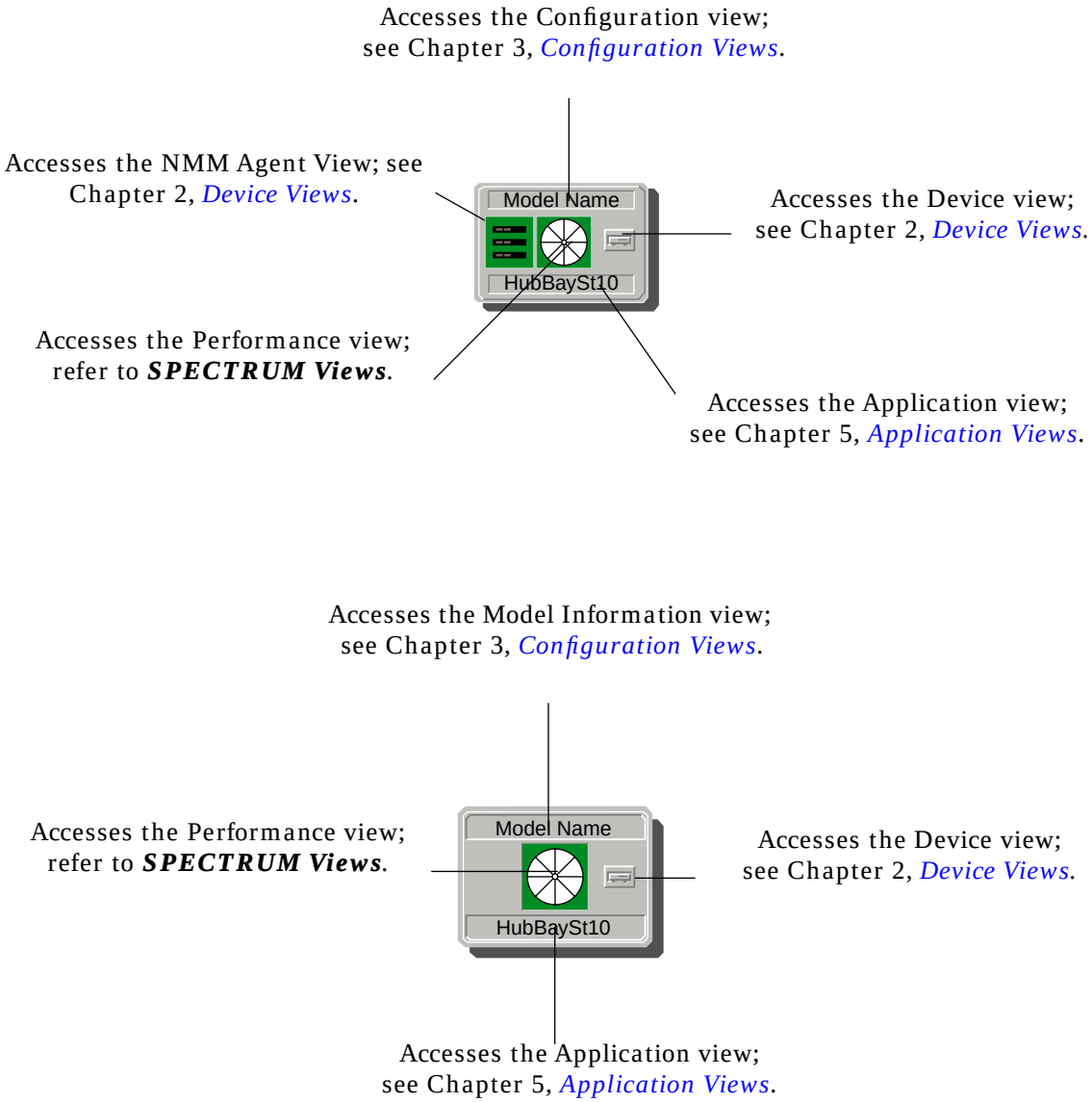
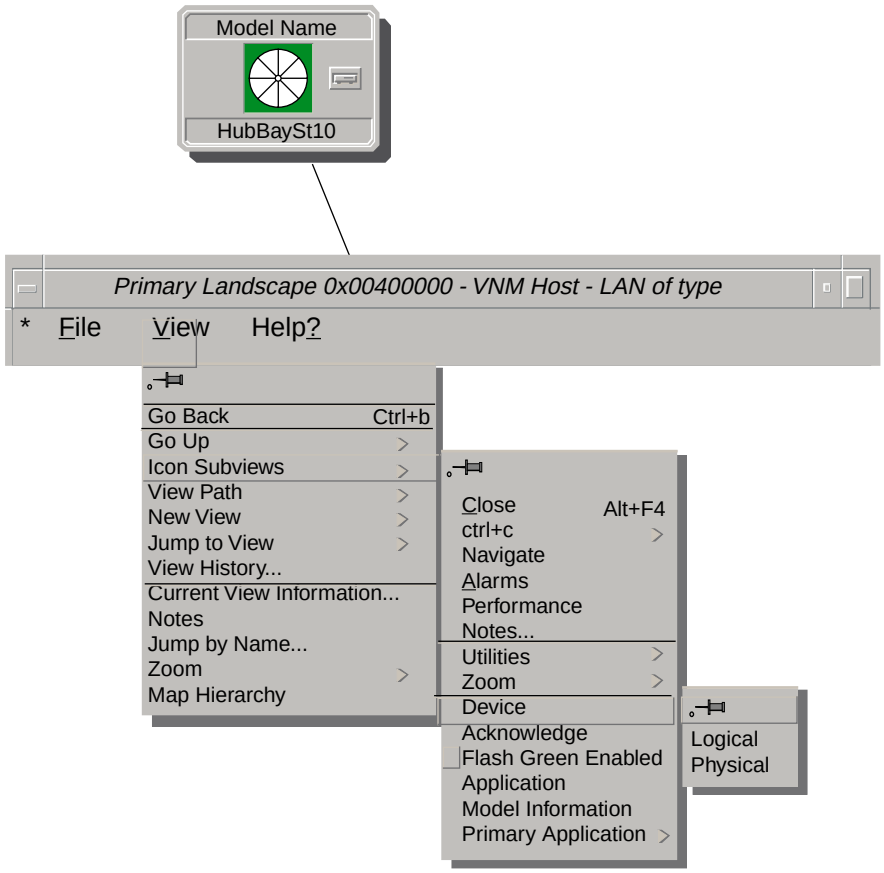


Figure 1-2. Using the Icon Subviews Menu to Access SPECTRUM Views



Accessing Module-Specific Subviews

Icon Subviews menus provide access to views that display device-specific information. Figure 1-3 shows an example of an Icon Subviews menu for a port icon located in the Device view. The device-specific Icon Subview's menu selections are described in Chapter 2, *Device Views*. The menu selections that are common to all devices are described in the Operations and Administration documentation.

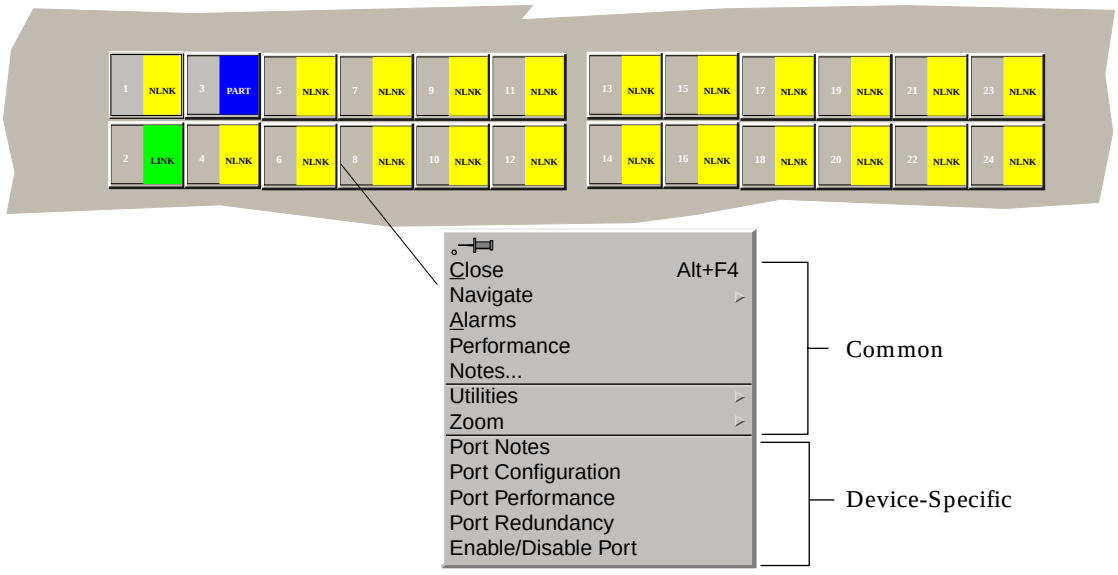
To access the Icon Subviews menu using the View menu:

1. Highlight the icon.
2. From the **View** menu, select **Icon Subviews**.

To access the Icon Subviews menu using the mouse button:

1. Position the mouse pointer on the icon.
2. Click the applicable mouse button (middle or right). Refer to ***Getting Started with SPECTRUM for Operators*** for information on configuring your mouse.

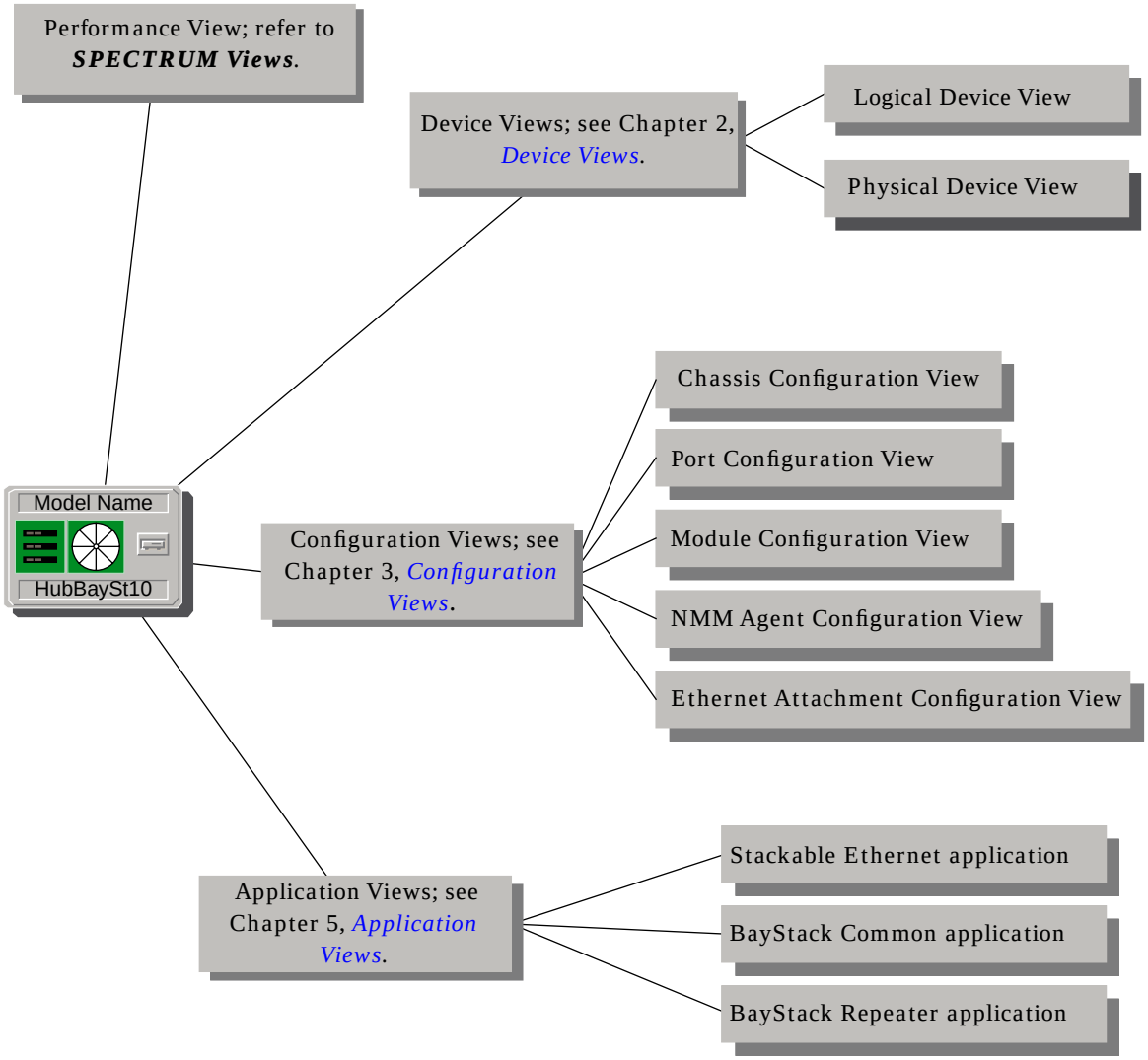
Figure 1-3. Accessing Module-Specific Subviews



Spectrum Views Roadmap

Figure 1-4 shows a "roadmap" of the SPECTRUM views for this device. These views are accessible from double-click zones (Figure 1-1) and Icon Subviews menus (Figure 1-2 and Figure 1-3).

Figure 1-4. Spectrum Views Roadmap



Chapter 2

Device Views

What Is in This Chapter

This chapter describes the following views for the Bay Networks BayStack Hub's Management Module.

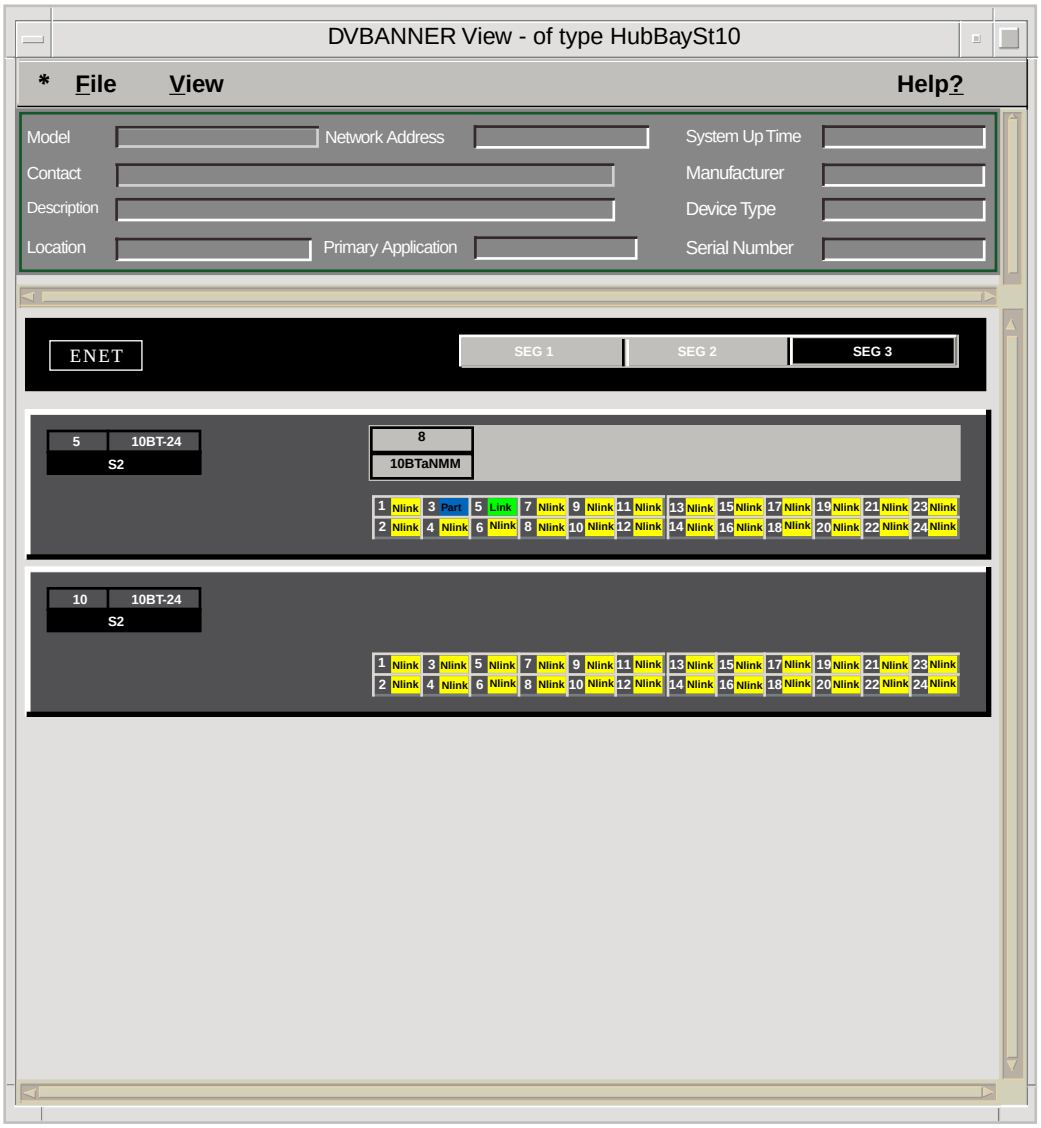
- Logical Device view
- Physical Device view

For more information on *Accessing SPECTRUM Views from the Device Icon*, see Chapter 1, page 1-2 and *Accessing Module-Specific Subviews*, page 1-5.

Logical Device View

This view displays a logical representation of the modules installed in the hub. The logical module representation provides information about the individual modules installed in the hub. If the configuration changes during the polling cycle SPECTRUM modifies the Device view, after the next polling cycle, to reflect the new configuration. Figure 2-1 shows an example of the Logical Device view.

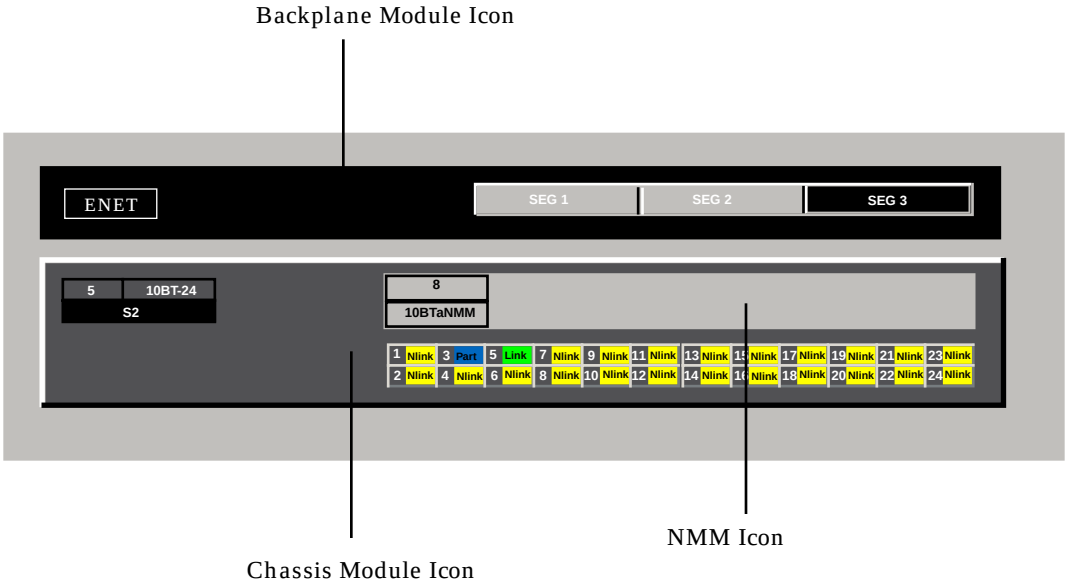
Figure 2-1. Logical Device View



Module Icons

Figure 2-2 shows an example of the Module icons that comprise the device. This example contains a Chassis Module icon, a Backplane Module icon and an NMM (Network Management Module) icon. This example and all of its parts are described in this chapter.

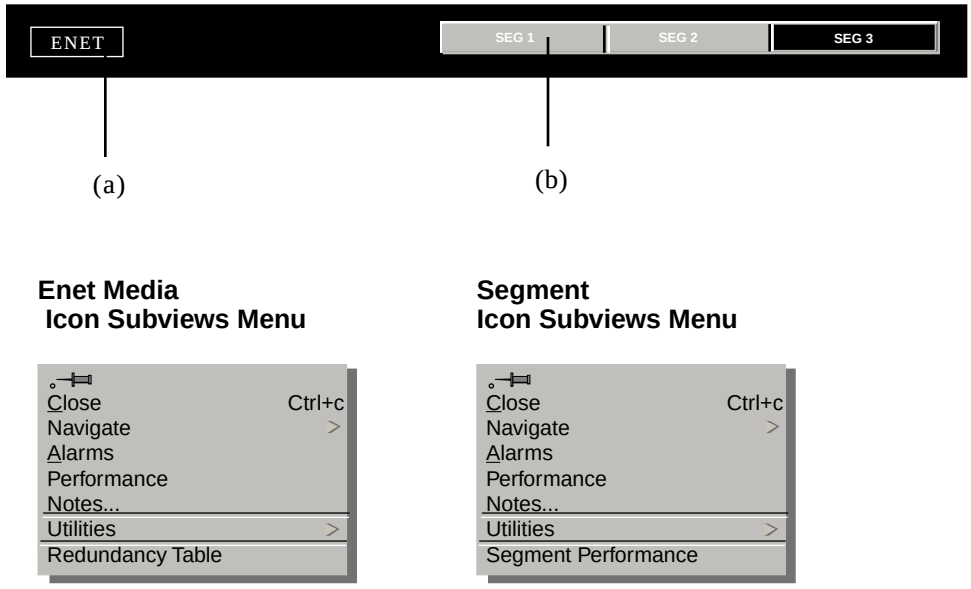
Figure 2-2. Module Icons



Backplane Module Icon

Figure 2-3 is an example of the Backplane Module icon. This Icon contains an Enet Media icon and three Segment icons. In addition, the subviews menus for these icons are included.

Figure 2-3. Backplane Module Icon



a. Enet Media Icon/Backplane Performance View.

b. Segment Icon/Ethernet Performance View

ENET Media Icon Subviews Menu

The Enet Media Icon Subviews menu selection is the BayStack Ethernet Chassis Redundancy Table View, described on page 2-5.

ENET Media Icon

The ENET Media icon provides double-click access to the Ethernet Backplane Segment Statistics view, described on page 2-7.

Segment Icon

This icon identifies which segment the device is attached to and provides double-click access to the Ethernet Performance View, described in ***SPECTRUM Views***.

BayStack Ethernet Chassis Redundancy Table View

This view provides redundancy status and control for each redundancy-capable port in the BayStack chassis. Only the following types of redundancy-capable ports appear in the table:

- Ports with remote fault signaling capability
- Ports without remote fault signaling capability which depend on link status to provide redundancy

The Redundancy Table provides the following information:

Last Change
Displays the "sysUpTime" value when the last change to any Redundancy Table entry was detected.

Module
Displays the slot in the chassis containing the module on which the port is located.

Port
Displays the number of the port on the module.

Capability
Displays the redundant-capability of the port. Possible values are described in Table 2-1.

Table 2-1. Redundant-capability Values

Value	Description
hwRedOnly	hardware redundancy only
swRedOnly	software redundancy only
hwAndswRed	both hardware and software redundancy

Redundancy Mode
Displays the redundancy mode of the port. Possible values are listed in Table 2-2.

Table 2-2. Redundancy Mode Values

Value	Description
standalone	The port is not in any redundant pair.
hwActive	The port is the active companion in a hardware-redundant pair.
hwStandby	The port is the standby companion in a hardware-redundant pair.
swActive	The port is the active companion in a software-redundant pair.
swStandy	The port is the standby companion in a software-redundant pair.

Values that can be written to the device to change redundancy mode are described in Table 2-3.

Table 2-3. Values That Change Redundancy Mode

Value	Description
standalone	Causes the redundant pair to be broken up.
hwActive	If the previous value was `hwStandby`, this value causes the port to become the active port in the hardware-redundant pair, resulting in a switchover.
hwStandby	If the previous value was `hwActive`, this value causes the port to become the standby port in the hardware-redundant pair, resulting in a switchover.
swActive	If the previous value was `swStandby`, this value causes the port to become the active port in the software-redundant pair, resulting in a switchover.
swStandy	If the previous value was `swActive`, this value causes the port to become the standby port in the hardware-redundant pair, resulting in a switchover.

Changing the **Redundancy Mode** to `hwActive` or `hwStandby`, creates a hardware-redundant pair. Changing this field to `swActive` or `swStandby`, creates a software-redundant pair.

Operational Status
Displays the redundancy status of the port. Possible values and their descriptions are listed in Table 2-4.

Table 2-4. Operational Status Values

Value	Description
other	None of the following.
ok	No faults detected.
localFault	The local port has sensed a fault condition. This value will cause a switchover.
remoteFault	The remote port has sensed a fault condition. This value will cause a switchover.

If the redundant link consists of ports without remote fault capability, the value `remoteFault` is not reported and the value `localFault` implies that the link is off.

Faults
Displays the number of local or remote faults on this port. This counter increments whenever there is a transition between a fault and no-fault state.

Companion Module
Identifies the redundant module slot. If this port is hardware-redundant capable, this field displays the slot number of the potential redundant companion even if it is in standalone mode. This allows you to determine the location of the potential redundant companion as it is fixed by the board's hardware.

Companion Port
Identifies the redundant port number. If this port is hardware-redundant capable, this field displays the slot number of the potential redundant companion even if it is in standalone mode. This allows you to determine the location of the potential redundant companion as it is fixed by the board's hardware.

Ethernet Backplane Segment Statistics view

This view provides statistical data on all backplane traffic for the device. It contains the following:

Update

Click this button to update the table information.

Totals

CLick this button to display the total errors as described below.

Set/Clear Filter

Allows you to toggle between set filter and clear filter.

Sort Up/Down/Unsort

Allows sorting of the table, based on the values in a selected column.

Src Index
Displays the index of the entry in the table.

Good Frames
Displays the total number of good frames detected on this segment.

Collisions
Displays the total number of collisions detected on this segment.

Alignment
Displays the total number of misaligned packets detected on this segment.

FCS Errors
Displays the total number of frames received that are an integral number of octets in length but do not pass the Frame Check Sequence (FCS).

Runts
Displays the total number of runt packets received by this segment. A runt packet is one byte less than the standard Ethernet frame of 64 bytes, not including preamble.

Giants
Displays the total number of giant packets received by this segment. A giant packet exceeds 1518 bytes, not including preamble.

OOW Collisions
Displays the total number of Out Of Window (OOW) collisions detected on this segment.

Segment Detail

Selecting a segment and clicking this buttons opens the Segment Detail View for that segment . The Segment Detail View displays graphs of the same information displayed in the Ethernet Backplane Segment Statistics view, described on page 2-7, as well as a button for **Additional Statistics**. The **Additional Statistics** button opens the Additional Statistics view, which provides graphs of the following information:

Bcast Frames
Displays the total number of broadcast frames detected on this segment.

Mcast Frames
Displays the total number of multicast frames detected on this segment.

TotalFragments
Displays the total number of fragmented frames detected on this segment.

Long Events
Displays the number of times that MAU jabber lockup protection was detected due to transmission of data that exceeded 5 msec in duration (Octet count greater than MaxFrame size). This information can be useful in identifying faulty stations.

Short Events
Displays the number of fragments detected with Activity Duration less than a minimum threshold value.

Rate Mismatches
Displays the number of times the FIFO buffer over-runs or under-runs due to transmission rate errors.

Backoff Fails
Displays the number of times a frame was received on this port with collision and port activity time of a value greater than 552 to 560 bit time.

Auto Partitions
Displays the number of times that this segment was auto-partitioned by the hardware. This condition occurs when 32 consecutive collisions are detected on the port.

Short IPGs
Displays the number of occurrences of too short Inter-Packet Gaps (IPGs) before good packets detected.

Null Frames
Displays the total number of empty frames detected on this segment.

The **Total**, **Delta**, and **Accum** buttons at the bottom of the Segment Detail view allow you to select how the data is represented. For more information on these buttons, refer to ***SPECTRUM Views***.

Segment Additional Detail

Opens the Segment Additional Detail view. The Segment Additional Detail view contains the same information as the Ethernet Backplane Segment Statistics view, described on page 2-7.

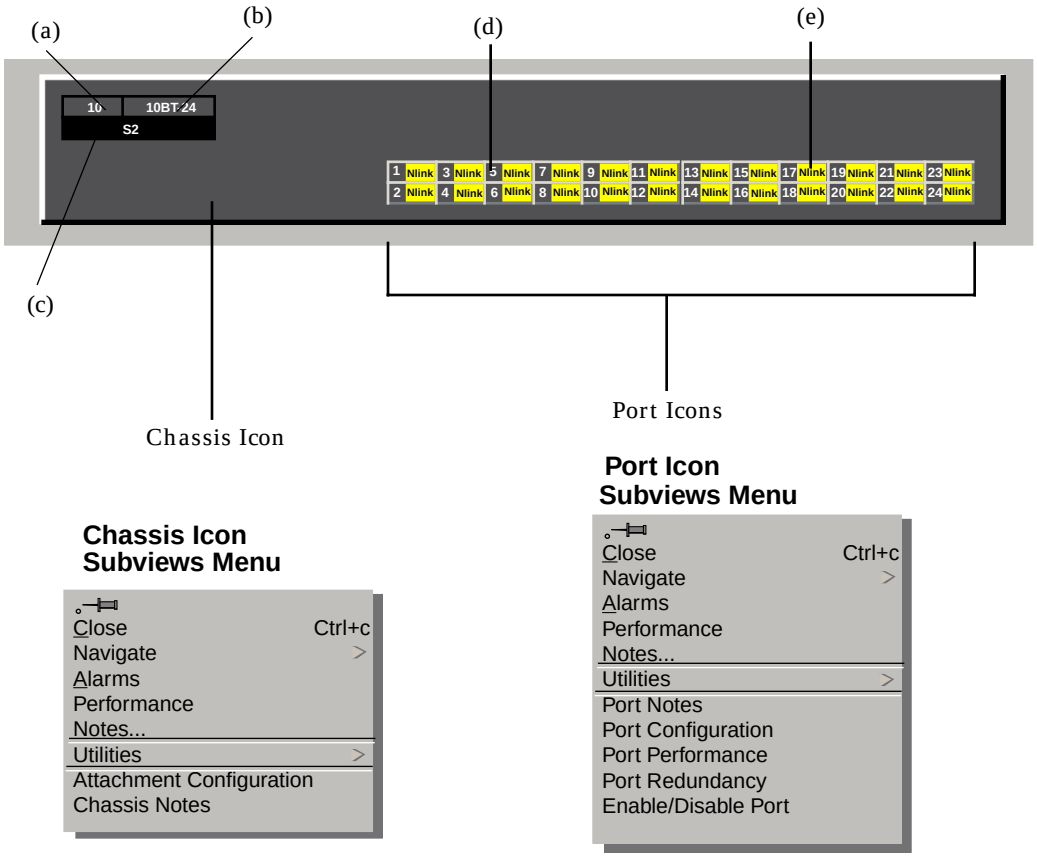
Segment Icon Subviews Menu

The Icon Subviews menu selection for the Segment icon is the BayStack Ethernet Performance view. Performance views are described in ***SPECTRUM Views***.

Chassis Icon

Figure 2-4 is an example of the Chassis icon, the Port icons and their Subviews menus.

Figure 2-4. Chassis Icon



a. Chassis Number Label/Chassis Notes.

b. Chassis Type Label

c. Segment Number Label/Configuration view

d. Port Number Label/Port Notes

e. Port Status Label/Port Configuration view

Chassis Icon Subviews Menu Selections

Table 2-5 describes the device-specific Subviews menu selections for the Chassis icon.

Table 2-5. Chassis Icon Menu Selections

Menu	Description
Attachment Configuration	Opens the Ethernet Attachment Configuration View described in Chapter 3, page 3-10.
Chassis Notes	Opens the Chassis Notes view, described in ***SPECTRUM Views***.

Chassis Number Label

Displays the index number of the chassis and provides double-click access to the Chassis Notes view, described in ***SPECTRUM Views***. Note that chassis are counted in increments of 5, and are numbered beginning with 5.

Chassis Type Label

Displays the type of chassis to which the device is attached.

Segment Number Label

Displays the number of the segment to which the device is attached and provides double-click access to the Ethernet Attachment Configuration View, described in Chapter 3, page 3-10.

Port Number Label

Displays a unique number identifying the port and provides double-click access to the Port Notes view, described in ***SPECTRUM Views***.

Port Status Label

Displays the status of the port and provides double-click access to the Port Configuration View, described in Chapter 3, page 3-3.

Port Icon Subviews Menu Selections

Table 2-6 descibes the device-specific Subviews menu selections for the Port icon.

Table 2-6. Port Icon Menu Selections

Menu	Description
Port Notes	Opens the Port Notes view, described in ***SPECTRUM Views***.
Port Configuration	Opens the Port Configuration view, described in Chapter 3, page 3-3.
Port Performance	Opens the BayStack Ethernet Port Performance view, described in ***SPECTRUM Views***.
Port Redundancy	Opens the Ethernet Port Redundancy view, described on page 2-12.
Enable/Disable Port	Displays the Enable/Disable Port view which allows the user to enable or disable specific ports

Ethernet Port Redundancy View

This view provides redundancy status and control for each redundancy-capable port on the device. Only the following types of redundancy-capable ports appear in the table:

- Ports with remote fault signaling capability.
- Ports without remote fault signaling capability which depend on link status to provide redundancy.

In addition, this view provides the following information:

Module
Displays the slot in the hub containing the module on which the port is located.

Port
Displays a unique number identifying the module port.

Companion Module
Identifies the redundant module slot. If this port is hardware-redundant capable, this field displays the slot number of the potential redundant

companion even if it is in standalone mode. This allows you to determine the location of the potential redundant companion as it is fixed by the module's hardware.

Companion Port
Identifies the redundant port number. If this port is hardware-redundancy capable, this field displays the slot number of the potential redundant companion even if it is in standalone mode. This allows you to determine the location of the potential redundant companion as fixed by the module's hardware.

Operational Status
Displays the redundancy status of the port. Possible values are listed in Table 2-7.

Table 2-7. Operational Status Values

Value	Description
other	Does not belong top a redundant pair.
ok	No faults detected.
localFault	The local port has sensed a fault condition. This value will cause a switchover.
remoteFault	The remote port has sensed a fault condition. This value will cause a switchover.

If the redundant link consists of ports without remote fault capability, the value `remoteFault` is not reported and the value `localFault` implies that the link is off.

Switchover Status
Indicates whether a port has redundancy capabilities. The possible values are given in Table 2-8.

Table 2-8. Switchover Status Values

Value	Description
other	An unknown or other state.
timedSwitchover	The port is active and another port is in standby. if the active port fails a timed switchover between the two ports occurs.

Capability
Indicates the redundant-capability of the port. Possible values are described in Table 2-9.

Table 2-9. Redundant Capability Values

Value	Description
hwRedOnly	hardware redundancy only
swRedOnly	software redundancy only
hwAndswRed	both hardware and software redundancy

Switchover Time
Displays the amount of time before a switchover completes between the port and its companion.

Redundancy Mode
Displays the redundancy mode of the port. Possible values are listed in Table 2-10.

Table 2-10. Redundancy Mode Values

Value	Description
standalone	The port is not in any redundant pair.
hwActive	The port is the active companion in a hardware-redundant pair.
hwStandby	The port is the standby companion in a hardware-redundant pair.
swActive	The port is the active companion in a software-redundant pair.
swStandy	The port is the standby companion in a software-redundant pair.

Values that can be written to the device to change redundancy mode are listed in Table 2-11.

Table 2-11. Values That Change Redundancy Mode

Value	Description
standalone	Causes the redundant pair to be broken up.
hwActive	If the previous value was `hwStandby`, this value causes the port to become the active port in the hardware-redundant pair, resulting in a switchover.
hwStandby	If the previous value was `hwActive`, the port becomes the standby port in the hardware-redundant pair, resulting in a switchover.

Table 2-11. Values That Change Redundancy Mode

Value	Description
swActive	If the previous value was `swStandby`, the port becomes the active port in the software-redundant pair, resulting in a switchover.
swStandy	If the previous value was `swActive`, the port becomes the standby port in the hardware-redundant pair, resulting in a switchover.

Changing the **Redundancy Mode** to `hwActive` or `hwStandby`, creates a hardware-redundant pair. Changing this field to `swActive` or `swStandby`, creates a software-redundant pair.

Faults
Displays the number of local or remote faults on this port. This counter increments when there is a transition between a fault and no-fault state.

Remote Fault Slect Mode
The set of local modes that contain fault events that will cause a switchover. Table 2-12 lists the modes and their descriptions.

Table 2-12. Remote Fault Select Mode Values

Mode	Description
standard	Contains the standard set of fault events: link-off, low light, jabber, Rx invalid idle, Tx dark, and Tx remote fault.
synoptics	Incorporates the standard set of faults, in addition to auto-partition and network partition events.

Transmit Mode
Displays which type of explorer packet will be transmitted by the standby port to the active port to determine if the active port is still alive. Possible values for this are given in Table 2-13.

Table 2-13. Transmit Mode Values

Value	Description
autocfg	The port is in automatic configuration.
fl	The port is configured in 10 BaseFL mode.
fb	The port is configured in 10 BaseFB mode.
other	None of the above: the port is not a fiber port.

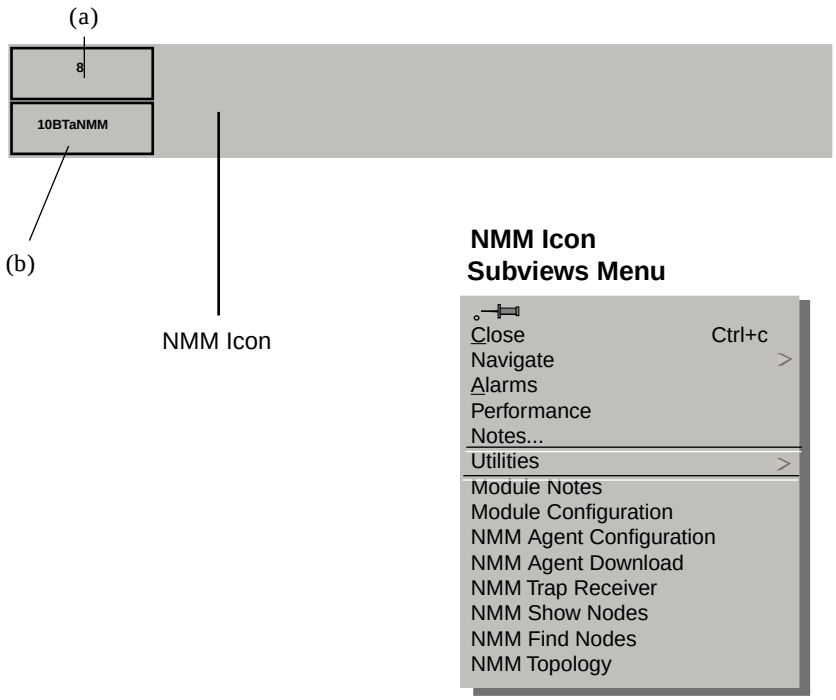
Remote Operational Status
Reflects the real time status of the received data from the remote port.

Mode Changes
Displays the number of times the operational status has changed.

NMM Icon

Figure 2-5 is an illustration of the NMM (Network Management Module) icon and its Subviews menu.

Figure 2-5. NMM Icon



a. Module Number Label/ Module Notes View

b. Module Type Label

NMM Icon Subviews Menu

Table 2-14 descibes the device-specific Subviews menu selections for the NMM icon.

Table 2-14. NMM Icon Menu Selections

Menu	Description
Module Notes	Opens the Module Notes view, described in ***SPECTRUM Views.***
Module Configuration	Opens the Module Configuration View, described in Chapter 3, page 3-4.
NMM Agent Configuration	Opens the NMM Agent Configuration View, described in Chapter 3, page 3-6.
NMM Agent Download	Opens the NMM Agent Download View, described on page 2-17.
NMM Trap Receiver	Opens the NMM Trap Receiver View, described on page 2-19.
NMM Show Nodes	Opens the ENET NMM Show Nodes Table, described on page 2-20.
NMM Find Nodes	Opens the ENET NMM Find Nodes Table, described on page 2-21.
NMM Topology	Opens the ENET NMM Topology Table View, described on page 2-22.

Module Number Label

This label displays the module number to which the NMM is attached and provides double-click access to the Module Notes view, described in ***SPECTRUM Views***.

Module Type Label

Displays the type of NMM plugged into the device.

NMM Agent Download View

This view enables you to download the agent that will be used by the NMM. The Agent Download view provides the following information:

Next Boot IP Addr
Displays the IP address of the interface that will be used for the next boot. If no IP address is used, then the value is 0.0.0.0. is displayed. The current IP address for the interface is found in the IP Address Table.

Next Boot Net Mask
Displays the subnet mask for the interface that will be used for the next boot. If no subnet mask is used, then the value is 0.0.0.0. is displayed. The current subnet mask for the interface is found in the IP Address Table.

Load Server Addr
Displays the IP address of the load server for the configuration file and/or the image file. If the IP address is not used, then the value is 0.0.0.0. is displayed.

Valid Flag
Indicates if the configuration and/or image file(s) were downloaded from this interface and if the file names have not been changed. Table 2-15 provides a list of possible values.

Table 2-15. Valid Flag Status Values

Value	Description
valid	Configuration and/or image file(s) downloaded from this interface are currently in use.
invalid	Configuration and/or image files downloaded from this interface are not in use (this may also mean that there are no files downloaded from this interface).

Config File Name
Displays the name of the configuration file currently associated with the interface. When not used, the value is zero.

Image File Name
Displays the name of the image file(s) currently associated with the interface. Some agents in special situations may support a value which contains multiple file names instead of a single file name. Multiple names are specified as a list of file names separated by semicolons (;). When this object is not used, the value is zero.

Write Configuration Settings to NVRAM
Allows you to write the configuration settings to non-volatile random access memory (NVRAM). This causes the current configuration settings to be written to local non-volatile storage. Table 2-16 provides a list of possible values.

Table 2-16. Write Configuration Settings to NVRAM Status Values

Value	Description
valid	contents valid
write	write configuration settings to local storage (such as NVRAM)
other	unknown or other state

NMM Trap Receiver View

This view provides information and addresses for devices receiving traps. The maximum and current number of trap receivers are displayed with the Trap Receiver Table. This view provides the following information:

Maximum Entries
Displays the maximum number of rows allowed in the trap receiver table.

Current Entries
Displays the current number of rows in the trap receiver table.

Next Available Entry
Displays the number identifying the next available row to be created in the trap receiver table. A value of zero indicates that the table is full and no more rows may be added.

Add Receiver

Allows addition of a receiver to the table by accessing the Add Trap Receiver view. The Add Trap Receiver view has the same fields as the Trap Receiver Table, but allows addition of information for the new entry. When adding a new trap receiver, the value displayed in the Next Entry Index field must be entered into the Use Entry Index field.

Trap Receiver Table

This table lists information about trap receivers and their IP addresses. Double-click an entry in this table to open the Trap Receiver Entry view, which allows modification of values for the selected trap receiver. The Trap Receiver table provides the following information:

Receiver
Displays the number identifying the row in the table.

Receiver Status
Displays the status of the row in the Trap Receiver Table. In the Add Trap

Receiver and Trap Receiver Entry views, this field corresponds to the **Status** button, which allows creation or deletion entries for the table. Table 2-17 provides a list of possible values.

Table 2-17. Receiver Status

Value	Description
Valid	Read-only status indicating the row exists and is valid.
Delete	Writeable value that deletes the row (Trap Receiver Entry view only).
Create	Writeable value that creates a new row (Add Trap Receiver view only).
Other	Read-only status indicating the row is unknown, or some other case exists.

Address Type
Displays the type of network address for the agent's trap receiver (i.e., IP).

Network Address
Displays the network address of the SNMP manager that will receive the traps. In the Add Trap Receiver and Trap Receiver Entry views, this field corresponds to the **Net Address** field. Enter the network address of the new trap receiver or modify the existing address in the **Net Address** field.

Community String
Displays the community string to use for the trap receiver. In the Add Trap Receiver and Trap Receiver Entry views, this field corresponds to the **Community Name** field. Enter the assigned community name to be used for the new trap receiver or modify the existing community name in the **Community Name** field.

Age Time
Displays the time interval used to age entries out of the trap receiver table. The default value is zero. A zero value indicates an infinite timeout, where entries will never be aged out. Modify this value in the Add Trap Receiver and Trap Receiver Entry views.

Ethernet NMM Show Nodes Table

This view provides a list of all the active MAC addresses that the NMM currently recognizes on all segments. This view provides the following information:

Interface
Displays the number identifying the source that detected the active node. Values greater than zero represent the index of the agent's interface in the

NMM. A value of zero indicates that the agent detected the node information through the best available method.

Module
Displays the number identifying the position of this module in the chassis.

Port
Displays the number identifying the position of this port on the module.

Mac Address
Displays the physical (MAC) address for the station.

Vendor
Displays the manufacturer of the device connected to that port. This is determined from the MAC address.

Status
Displays the operational status of the MAC address for the station. Table 2-18 provides a list of possible values.

Table 2-18. Operational Status of MAC Address

Value	Description
active	The station has sent a frame within the required time period, or for Token Ring or FDDI, that the station is in the ring poll.
inactive	The station is idle, having sent no frames within the required time period.
other	The address is unknown or in some other state.

Ethernet NMM Find Nodes Table

This view provides a list of all the active MAC addresses that the NMM currently recognizes on all segments. It provides the following information:

Interface
Displays the number identifying the source that detected the active node. Values greater than zero represent the index of the agent's interface in the NMM. A value of zero indicates that the agent detected the node information through the best available method.

MAC Address
Displays the physical (MAC) address of the station.

Vendor
Displays the manufacturer of the device connected to that port. This is determined from the MAC address.

Module
Displays the number identifying the position of this module in the chassis.

Port
Displays the number identifying the position of this port on the module.

Ethernet NMM Topology Table View

This view provides a table of topology information from each NMM with an Ethernet interface on the same flat network as the reporting NMM. The number of entries is determined by the number of detected and active NMMs. Entries in the table are created by reception of a topology message from a "new" NMM. An entry is automatically removed from the table after no messages are received from the NMM in the required time interval. This table provides the following information:

IF IP Address
Displays the IP address of the interface on which the topology message was received.

Slot
Displays the number of the slot from which the topology message was received. Note: there is an artificial 'row' for the reporting NMM with slot and port equal to zero.

Port
Displays the number of the port from which the topology message was received.

NMM IP Address
Displays the IP address of the NMM that sent the topology message.

MAC Address
Displays the MAC address of the NMM agent that sent the topology message.

Chassis Type
Displays the chassis type of the concentrator containing the NMM that sent the topology message.

Backplane Type
Displays the backplane type of the concentrator containing the NMM that sent the topology message.

Local Seg
Indicates whether the NMM that sent the topology message is on the same Ethernet segment as the interface of the reporting NMM.

Seen
Displays the total number of entries in the table reachable from the same interface and slot-port pair as this entry.

Links
Displays the number of unique slot-port pairs from which topology messages have been received by the NMM that sent the topology message.

State
Displays the current state of the NMM that sent the topology message. Possible values are: `topChanged` if the topology information has recently changed and `heartbeat` if the topology information is unchanged.

NMM Agent View

This is a container view which displays all NMM Agent modules contained within the chassis. Table 2-19 lists all of the specific Subviews menu selections for this agent. To access this view see *Accessing SPECTRUM Views from the Device Icon*, described in Chapter 1, page 1-5.

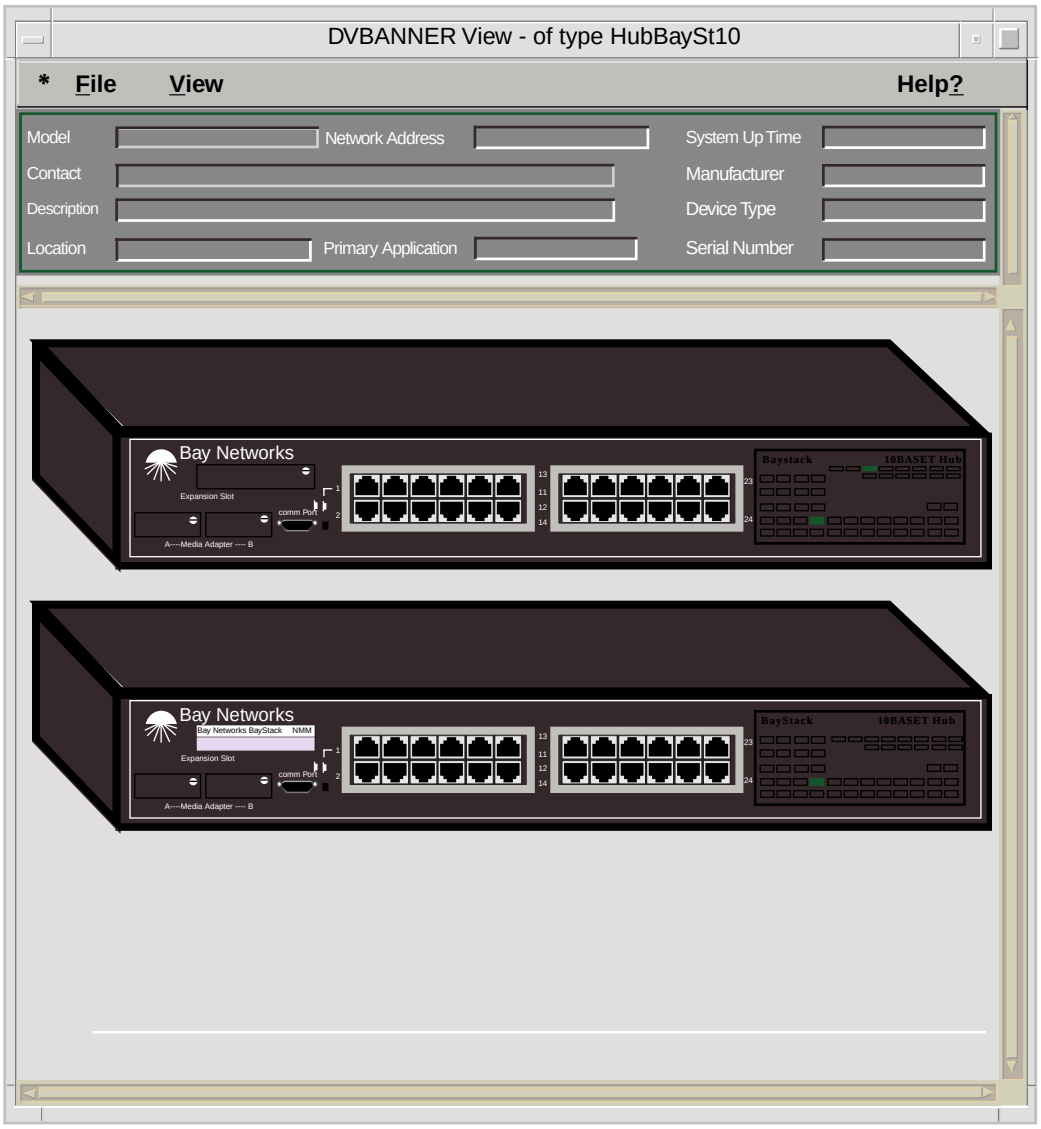
Table 2-19. NMM Agent View Subviews Menu Selections

Menu	Description
Application	Opens an application view specific to the NMM Agent. See Chapter 5, *Application Views*.
Primary Appliction	Updates the primary application view to MIB II.
NMM Agent Configuration	Opens the BayStack NMM Agent Configuration View, described in Chapter 3, page 3-6.
NMM Agent Download	Opens the NMM Agent Download View, described on page 2-17.
NMM Trap Receiver	Opens the NMM Trap Receiver View, described on page 2-19.
NMM Show Nodes	Opens the ENET NMM Show Nodes Table, described on page 2-20.
NMM Find Nodes	Opens the ENET NMM Find Nodes Table, described on page 2-21.
NMM Topology	Opens the ENET NMM Topology, described on page 2-22.

Physical Device View

The physical device view displays a physical representation of each of the modules in the device. If an NMM is present, this view also allows you to access the same NMM Icon Subviews menu that can be accessed from the Logical Device view. Figure 2-6 shows an example of the Physical Device view.

Figure 2-6. Physical Device View



Chapter 3

Configuration Views

What Is in This Chapter

This chapter describes the following Configuration views available for Bay Networks Baystack Hubs. These views display network configuration and operating information for the device and its interfaces.

- Chassis Configuration
- Port Configuration
- Module Configuration
- NMM Agent Configuration
- Attachment Configuration

Chassis Configuration View

This view contains detailed network configuration information for the chassis. It provides configuration information on the device model in the VNM database and the device's firmware configuration.

Chassis Version
Displays the current version of the chassis.

Chassis Serial Number
Displays the serial number of the chassis. A value of zero indicates the serial number is unknown or unavailable.

Chassis Type
Displays a description of the chassis type.

Chassis Contact
Allows you to enter or modify the contact information for the person responsible for the chassis.

Chassis Description
Displays a physical description of the chassis.

Chassis Location
Allows you to modify the description of the physical location of the chassis (e.g., fourth floor wiring closet).

Total Physical Changes
Displays the total number of physical changes (i.e., the addition or removal of a component or sub-component) that have been detected in the chassis since the start of the agent.

Last Physical Change
Displays the value of the sysUpTime variable when the last physical change (i.e., addition or removal of a module) was detected in the chassis.

Total Attachment Changes
Displays the total number of attachment changes across all modules in the chassis that have been detected since the start of the agent.

Last Attachment Change
Displays the value of the sysUpTime variable when the last attachment change on any module in the chassis was detected.

Total Configuration Changes
Displays the total number of configuration changes (other than attachment changes, physical additions or removals) across all modules in the chassis that have been detected since the start of the agent.

Last Configuration Change
Displays the value of the sysUpTime variable when the last configuration change (other than attachment changes or physical additions or removals) on any module in the chassis was detected.

Agent Interface

Accesses the Agent Interface View, described on page 3-2.

Agent Interface View

This view contains the Agent IF Table, which provides information about each interface for each agent in the chassis. The number of entries in the table is determined by the number of agents in the chassis. The Agent IF Table provides the following configurable information:

Component Index
Displays the number of the module containing the agent.

Interface Index
Displays the index number of the interface.

IP Address
Displays the IP address of the interface. A value of 0.0.0.0. indicates the IP address is unknown or unused.

Port Configuration View

This view provides information on the configuration of the selected port. To access this view:

1. Within the Logical Device view, highlight the Port icon.
2. From the **View Menu** select **Icon Subviews** > **Port Configuration**.

This view provides the following information:

Module
Displays the number specifying the location in the hub of the module the port is on.

Port
Displays the number uniquely identifying the selected port on the module.

Part Status
Allows you to change the partition status of the selected port. The possible values are listed in Table 3-1.

Table 3-1. Partition Status Values

Status	Description
other	partition status is unknown (Read Only)
enabled	port is enabled (Read-Write)
partition	port is partitioned (Read-Write)
autopartition	port is auto-partitioned by the hardware (Read Only)
timedPartition	port is configured for timed partitioning (Read-Write)

Part Time (secs)
Displays the length of time to keep the port partitioned when a timed partition is done to the port. This value can only be written in the same request that sets the status of the port to TimedPartition. Afterwards, it indicates the amount of time left before the timed partition is completed, at

which time the part status is changed to enabled. This value is zero if the port is not timed partitioned or the amount of time is not available.

Link Status
Displays whether the port is receiving link status. The possible values are detailed in Table 3-2.

Table 3-2. Link Status Values

Value	Description
other	returned for AUI
off	link is not connected, applies to 10BASE-T and Fiber ports only
on	link is connected; applies to 10BASE-T and Fiber ports only

Jabber Status
Displays the jabber status of the end node or nodes connected to the port. The possible values are shown in Table 3-3.

Table 3-3. Jabber Status Values

Value	Description
other	unknown or other condition
jabbering	port is receiving jabber
ok	port is not detecting any jabber

Module Configuration View

This view provides an attachment table as well as information on the configuration of the module. To access this view:

1. Within the Logical Device view, highlight the NMM icon.
2. From the **View Menu** select **Icon Subviews** > **Module Configuration**.

This view provides the following information:

Module
Displays the number specifying the location of the module in the hub.

Manufacture Date
Displays, in ASCII, the date of manufacture of the module following the format: yyyymmdd. For example, the value for April 13, 1993 is 19930413. If the date is not available, a zero is displayed.

Attachments
Displays the total number of backplane network attachment points on the module.

Attachment Changes
Displays the total number of attachment changes for the module detected since cold/warm start of the agent or since the insertion of the module.

Last Attachment Change
Displays the value of `SysUpTime` when the last attachment change on the module was detected. If no change has been detected since cold/warm start of the agent, the value is zero.

Configuration Source
Displays the source of the configuration at the last module reset. Table 3-4 details the possible configuration values.

Table 3-4. Configuration Source Values

Value	Description
other	unknown or some other value
dfltJmpr	default jumpers
prmMem	permanent memory on the module
brdCfg	saved configuration on the module
sm	supervisor
smDfltJmpr	SM and default jumpers
smPrmMem	SM and permanent memory on the module

Configuration Changes
Displays the total number of configuration changes for the module detected since the cold/warm start of the agent or since the insertion of the module.

Set Current Attachment For All Attachments
Allows you to change the current attachments. Posible values are SEG 1-3 or ISOL.

Module Attachment Table

This table displays information on the attachment points on the boards in the chassis. It contains the following information:

Attachment
Displays the index number of the attachment point on the board.

Current
Displays the current setting for the attachment point. The slot position of the board, the setting of the backplane divider switch(es), and the mode setting affect which backplane networks are valid values. Also, some boards may put limitations on which backplane network(s) or local channel(s) may be used.

Default
Displays the default setting for the attachment point. An attachment point may be attached to a local channel, not attached to any backplane network, or attached to a media specific backplane network. (The valid choices depend on each specific attachment point.) NOTE: This value will always be valid and may change when the backplane divider switch setting is changed.

Changes
Displays the total number of attachment changes for the attachment point that have been detected since cold/warm start of the agent.

Last Change
Displays the time since the last reset at which the most recent attachment change for the attachment point was detected. If none have been detected since restart of the agent, then the value is zero.

NMM Agent Configuration View

This view displays and provides detailed information on the configuration of the agent, including the initial boot information. To access this view:

1. Within the Logical Device view, highlight the NMM icon.
2. From the **View Menu**, select **Icon Subviews** > **NMM Agent Configuration**.

This view provides the following information:

RAM Version
Displays the version of the agent for the RAM of the module.

Initial Boot Info Source
Displays the source for initial protocol configuration information at next boot. For IP, a setting of `net using bootp` means that BOOTP will be used to get the agent's IP address(es), load server address, and configuration file name.

For IPX, a setting of `net using bootp` means SAP will be used to get the agent's Novell network number(s), and the configuration filename will be loaded from local storage. The load server address is not configurable and is

not available on a Novell network. Table 3-5 lists all valid entries:

Table 3-5. Initial Boot Info Source Entries

Value	Description
local	Don't use the network.
net using bootp	Try using the network and if that fails then use protocol configuration information from local storage.
other	Not applicable or some other case.

Local Storage Version
Displays the version of the agent saved in local storage (such as flash memory). If not known or not available the value is zero.

Configuration Load Source
Displays the source from which to load configuration information at the next boot. The values are given in Table 3-6.

Table 3-6. Configuration Load Source Values

Value	Description
local only	get from local storage
net only	load from the network
net with local backup	try using network and if it fails then use local information
other	not applicable or some other case

When `local only` is specified, the configuration information is loaded from local storage. If the local configuration is not valid, then BOOTP is used for the IP stack.

In IPX only mode, the IP address could be 0.0.0.0; IPX does not rely on the IP address. The agent checks the IPX address, and if the network number of the IPX address is equal to 0 the agent uses SAP.

When `net only` is specified, the configuration information will be downloaded from the network only. The configuration information will never be loaded from local storage, even if downloading fails and the local configuration information exists.

When `net with local backup` is specified, a download of the configuration information will be tried over the network. If the network download fails, then the configuration information will be loaded from local storage.

Current Gateway
Displays the IP address of the current default gateway (router). If not used, this object has the value of 0.0.0.0.

Current Protocol
Displays the transport protocol over which the agent image and configuration information were last loaded. Table 3-7 details all valid status values.

Table 3-7. Current Protocol Status Values

Value	Description
ipOnly	gotten from the network using a load protocol over IP
other	unknown or some other protocol

Next Boot Gateway
Displays the IP address of the default gateway (router) for the agent to use after the next boot. If not used, this object has the value of 0.0.0.0.

Next Boot Protocol
Displays the transport protocol(s) which the agent uses to load the configuration information and the agent image at the next boot of the agent. The values are given in Table 3-8.

Table 3-8. Next Boot Protocol Values

Value	Description
ipOnly	use load protocol over IP
other	unknown or some other protocol

Last Boot Image Save Status
Indicates what happened to the image file on the last boot. Table 3-9 lists all possible values and their descriptions.

Table 3-9. Last Boot Image Save Status Values

Value	Description
notAvail	the save operation is not available
noSave	image not saved since image was not asked to be saved, or image was not loaded from the network
saved	image saved
saveFailed	tried to save image, but failed

Next Boot Image Load Source
Displays the source from which to load the agent image at next boot. Valid entries are shown in Table 3-10.

Table 3-10. Next Boot Image Load Source Values

Value	Description
local only	Get from local storage.
net only	Load from the network, cannot be changed to “local only” or “net with local backup” until a valid image file is loaded. When the local image is not valid and the network download of the image fails, the entire boot process will be repeated.
net with local backup	Load from the network and if that fails, use local information.
net if newer	Try loading the image over the net. If successful, it will then be compared to the image stored in local storage. The most recent version of the two will be used. If the local image is not valid, the network will always be used. If the network download fails then the image is loaded from the local storage.
other	Not applicable or some other case.

Next Boot Image Save Mode
Indicates what will be done with the image (when loaded from the network) on the next boot. Table 3-11 displays the values and their descriptions.

Table 3-11. Next Boot Image Save Mode Values

Value	Description
not available	the write operation is not available
write if different	write image to local storage at the next boot if the image is different from saved contents
write if newer	write image to local storage at the next boot if the image is newer than saved contents
no write	do not write image to local storage at the next boot, even if the image is newer or different

Write Configuration Settings to NVRAM
Allows you to write the current configuration settings to local non-volatile random access memory (NVRAM). Table 3-12 lists all valid entries.

Table 3-12. Write Configuration Settings to NVRAM

Value	Description
valid	contents valid
write	write configuration settings to local storage
other	some unknown or other state

Reboot Agent
Allows you to reboot the agent. Table 3-13 lists all valid entries and a description of each.

Table 3-13. Reboot Agent Values

Value	Description
other	agent in unknown or other state
running	agent running
restart	restart agent (i.e., jump to beginning of agent code)
reboot	start boot sequence for agent (i.e., jump to beginning of boot firmware)
reset	do a hardware reset

Ethernet Attachment Configuration View

Each of the attachments on the module has an Ethernet Attachment Configuration view. These views provide information on the configuration of each specific attachment. To access this view:

1. Within the Logical Device view, highlight the Chassis icon.
2. From the **View Menu**, select **Icon Subviews** > **Attachment Configuration**.

This view provides the following information:

Module
Displays the number specifying the location in the hub of the module having the attachment.

Attachment
Displays the number specifying the location of the attachment on the module.

Current Attachment
Displays and provides configuration of the current setting for the attachment point.

Last Change
Displays the value of `SysUpTime` when the last attachment change for the attachment point was detected. If no change has been detected since cold/warm start of the agent, the value is zero.

Chapter 4

Event and Alarm Messages

What Is in This Chapter

This chapter lists the types of events and alarms generated by the Bay Networks BayStack Hub and provides any probable cause messages corresponding to these alarms.

Device Events and Alarms

Table 4-1 lists the SPECTRUM database directory paths (in bold) and the messages displayed for the Event Log and Alarm Manager when applicable.

Table 4-1. Events and Alarms

CsEvFormat/Event01020001 {d "%w- %d %m-, %Y - %T"} A "hot swap" has been detected in slot {O 2} (slot is second digit). Operational state is {T Syn5OpTable 3}. {t} (name - {m }). (Trap type : 0x01) - (event [{e}])	**No Probable cause message.**
CsEvFormat/Event01020002 {d "%w- %d %m-, %Y - %T"} The operational condition of component {O 2} is {T Syn5OpTable 3}. [component first digit - (1) Supervisory Module (2) Backplane (3) Module (4) Power Supply (5) Temp Sensor (6) Fan (7) Clock]. {t} (name - {m }). (Trap type : 0x02) - (event [{e}])	**CsPCause/Prob01020002** 1) The component or sub-component listed in the event file has a problem condition, either warning, non-fatal, or fatal.
CsEvFormat/Event01020003 {d "%w- %d %m-, %Y - %T"} DCE {O 4} on ring {I 3} (ring ID {I 1}) whose last NAUN is {X 5} has detected a beaconing station. The beacon type is {T S5TRBeaconType 7}. {t} (name - {m}). (Trap type : 0x01020003) - (event [{e}])	**CsPCause/Prob01020003** 1) The beacon type indicates the reason for the beacon. If reconfiguration, the ring will recover. If signal loss, the beaconing station is no longer receiving a valid signal. If bit-streaming, the beaconing station is no longer receiving a valid token or frame but is receiving a valid signal. If contention streaming, the station is indicating that monitor contention could not be resolved within one second.
CsEvFormat/Event01020004 {d "%w- %d %m-, %Y - %T"} DCE {O 4} has detected a splitter on ring {I 3} (ring ID {I 1}). {t} (name - {m}). (Trap type : 0x08) - (event [{e}])	**CsPCause/Prob01020004** 1) A lobe splitter is interfering with normal ring operation.
CsEvFormat/Event01020005 {d "%w- %d %m-, %Y - %T"} DCE {O 4} has detected a new active monitor (MAC address - {X 7}) on ring {I 1}. The last Nearest Upstream Neighbor Address (NAUN) is {X 5}. {t} (name - {m}). (Trap type : 0x08) - (event [{e}])	**No Probable cause message.**

Table 4-1. Events and Alarms

CsEvFormat/Event01020006 {d "%w- %d %m-, %Y - %T"} DCE {O 4} (MAC Address - {X 5}) has detected a bridge deinserting from ring {I 3} (ring ID {I 1}). {t} (name - {m}). (Trap type : 0x01020006) - (event [{e}])	**No Probable cause message.**
CsEvFormat/Event01020007 {d "%w- %d %m-, %Y - %T"} DCE {O 4} (MAC Address - {X 5}) has detected a new source routing bridge on ring {I 3} (ring ID {I 1}). {t} (name - {m}). (Trap type : 0x01020007) - (event [{e}])	**No Probable cause message.**
CsEvFormat/Event01020008 {d "%w- %d %m-, %Y - %T"} Station {O 4}on ring {I 3} (ring ID {I 1}) has been automatically wrapped by the NMM. Current port state is {T S5TPortStatus 5}. {t} (name - {m}). (Trap type : 0x08) - (event [{e}])	**CsPCause/Prob01020008** 1) The element has been wrapped by the NMM.
CsEvFormat/Event01020009 {d "%w- %d %m-, %Y - %T"} Station {O 4}on ring {I 3} (ring ID {I 1}) has been automatically unwrapped by the NMM. Current port state is {T S5TPortStatus 5}. {t} (name - {m}). (Trap type : 0x08) - (event [{e}])	**No Probable cause message.**
CsEvFormat/Event01020010 {d "%w- %d %m-, %Y - %T"} DCE {O 4} has detected MAC address {X 5} inserting into ring {I 1}. {t} (name - {m}). (Trap type : 0x08) - (event [{e}])	**No Probable cause message.**
CsEvFormat/Event01020011 {d "%w- %d %m-, %Y - %T"} DCE {O 4} has detected MAC address {X 5} deinserting from Ring {I 1}. {t} (name - {m}). (Trap type : 0x08) - (event [{e}])	**No Probable cause message.**

Table 4-1. Events and Alarms

CsEvFormat/Event01020012 {d "%w- %d %m-, %Y - %T"} A port auto-partition condition has been detected on {O 2} (board.port). The port partition status is {T S5EPortPartS 1}. The port jabber status is {T S5EPortJabberS 3}. {t} (name - {m}). (Trap type : 0x01020012) - (event [{e}])	**CsPCause/Prob01020012** 1) The port has a faulty device, excessive collisions, DTE jabbering, or a wiring problem. This could include bad connections, topological loops or protocol issues, such as broadcast or multicast echo requests.
CsEvFormat/Event01020013 {d "%w- %d %m-, %Y - %T"} Port {O 2} (board.port) has detected an Ethernet DTE is jabbering. The jabber status is {T S5EPortJabberS 1}. {t} (name - {m}). (Trap type : 0x01020013) - (event [{e}])	**CsPCause/Prob01020013** 1) An Ethernet port has been flagged as jabbering. Jabbering occurs when a station continues to transmit a signal.
CsEvFormat/Event01020014 {d "%w- %d %m-, %Y - %T"} Port {O 2} (board.port) in a redundant pair has developed a fault. The port operational status is {T S5ERedPtOperS 1}. The port's companion is {I 3}.{I 5}. The port partition status is {T S5EPortPartS 7}. The port link status is {T S5EPortLinkS 9}. The port jabber status is {T S5EPortJabberS 11}. {t} (name - {m}). (Trap type : 0x01020014) - (event [{e}])	**CsPCause/Prob01020014** 1) An Ethernet port that is in a redundant pair has developed a fault.
CsEvFormat/Event01020015 {d "%w- %d %m-, %Y - %T"} The NMM has detected an invalid remote operational status on {O 2} (board.port). The port remote operational status is {T S5ERedRemOperS 1}. The port redundancy mode is {T S5ERedPtRedunM 3}. {t} (name - {m}). (Trap type : 0x01020015) - (event [{e}])	**CsPCause/Prob01020015** 1) A status of tenBaseFLPortUp was detected on a port set for hardware redundancy. 2) A status of Unknown was detected and the companion port has a good link.
CsEvFormat/Event01020017 ***The above file is called by EventDisp, but does not exist.*** ***Let your developer know.***	**CsPCause/Prob01020017** ***The above file is called by EventDisp, but does not exist.*** ***Let your developer know.***

Table 4-1. Events and Alarms

CsEvFormat/Event36000115 {d "%w- %d %m-, %Y - %T"} FDDI logical topology change notification. The number of Primary ring changes is {I 1}, Secondary ring is {I 2}. The number of logical path topology changes is {I 3}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.6.36) - (event [{e}]).	**No Probable cause message.**
CsEvFormat/Event36000116 {d "%w- %d %m-, %Y - %T"} The link error monitor has observed a link error rate cutoff or alarm threshold condition on port {O 2}. The long term average link error rate is {I 5}. The estimate greater than or equal alarm condition is {T T36000116_LCon 1}. Cutoff is {I 3}. Alarm Threshold is {I 4}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.6.37) - (event [{e}]).	**CsPCause/Prob36000116** 1) There is a connection problem with the transceiver and/or the wiring connected to the port.
CsEvFormat/Event36000117 {d "%w- %d %m-, %Y - %T"} An undesirable or illegal connection attempt was detected on port {O 2}. The connection was {T T36000117_ACPT 6}. The port PC type is {T T36000117_PCTy 1}. The port's connect state is {T T36000117_PCSt 4}. The neighbor port PC type is {T T36000117_PCTy 3}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.6.38) - (event [{e}]).	**CsPCause/Prob36000117** 1) Twisted ring error. 2) Local connection policy violation.
CsEvFormat/Event36000118 {d "%w- %d %m-, %Y - %T"} Two or more stations with the same MAC address have been detected on the network. The RMT Duplicate Address Flag is {T T36000118_DAFl 1}. The SMT address is {S 3}. The Upstream Neighbor Address is {S 5} with a Duplicate Address Flag of {T T36000118_DAFl 4}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.6.39) - (event [{e}]).	**CsPCause/Prob36000118** 1) Two or more stations on the network have the same MAC address.

Table 4-1. Events and Alarms

CsEvFormat/Event36000119 {d "%w- %d %m-, %Y - %T"} The bad FDDI MAC frames threshold was exceeded for {X 2}. The frame error condition is {T T36000119_FCon 1}. Frame count is {I 3}. Error count is {I 4}. Lost count is {I 5}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.6.40) - (event [{e}]).	**CsPCause/Prob36000119** 1) There may be a problem between this station and its upstream neighbor. The upstream neighbor may be transmitting errors or leaving the ring.
CsEvFormat/Event3600011a {d "%w- %d %m-, %Y - %T"} Station {X 2} is experiencing local buffer congestion. The Not Copied Condition is {T T3600011a_CCon 1}. The Not Copied count is {I 3}. The {O 5} frames sucessfully received count is {I 4}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.6.41) - (event [{e}]).	**CsPCause/Prob3600011a** 1) A station is experiencing local buffer congestion.
CsEvFormat/Event3600011b {d "%w- %d %m-, %Y - %T"} A change was detected in upstream or downstream neighbors for station {X 2}. The Upstream Neighbor is now {S 1}, it was {S 3}. The Downstream Neighbor is now {S 4}, it was {S 6}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.6.42) - (event [{e}]).	**No Probable cause message.**
CsEvFormat/Event3600011c {d "%w- %d %m-, %Y - %T"} Port {O 2} has exhibited elasticity buffer errors. The elasticity buffer error count is {I 1}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.6.43) - (event [{e}]).	**CsPCause/Prob3600011c** 1) A station may be transmitting frames that are too long. 2) A station may be using a clock that is out of tolerance.
CsEvFormat/Event3600011d {d "%w- %d %m-, %Y - %T"} The {T T3600011d_RING 3} dual ring peer wrap flag is {T T3600011d_PEER 4} at a station. Attachment configuration for the station is {T T3600011d_TCFS 1}. SMT entry number is {O 2}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.2.7.0.6.1) - (event [{e}]).	**CsPCause/Prob3600011d** 1) The dual ring is wrapped at a station (wrapA or wrapB). Note that this is a legal configuration and may be intentional.

Table 4-1. Events and Alarms

CsEvFormat/Event3600011e {d "%w- %d %m-, %Y - %T"} Two or more stations with the same MAC address have been detected on the network. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.2.7.0.6.2) - (event [{e}]).	**CsPCause/Prob36000118** 1) Two or more stations on the network have the same MAC address.
CsEvFormat/Event3600011f {d "%w- %d %m-, %Y - %T"} The bad FDDI MAC frames threshold was exceeded for {0 2}. The frame error condition is {T T3600011f_FCon 1}. Frame count is {I 3}. Error count is {I 4}. Lost count is {I 5}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.2.7.0.6.3) - (event [{e}]).	**CsPCause/Prob36000119** 1) There may be a problem between this station and its upstream neighbor. The upstream neighbor may be transmitting errors or leaving the ring.
CsEvFormat/Event36000120 {d "%w- %d %m-, %Y - %T"} A station is experiencing local buffer congestion. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.2.7.0.6.4) - (event [{e}]).	**CsPCause/Prob3600011a** 1) A station is experiencing local buffer congestion.
CsEvFormat/Event36000121 {d "%w- %d %m-, %Y - %T"} The link error monitor has observed a link error rate cutoff or alarm threshold condition. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.2.7.0.6.5) - (event [{e}]).	**CsPCause/Prob36000116** 1) There is a connection problem with the transceiver and/or the wiring connected to the port.
CsEvFormat/Event36000122 {d "%w- %d %m-, %Y - %T"} An undesirable or illegal connection attempt was detected on port {O 2}. The port PC type is {T T36000117_PCTy 1}. The port PC neighbor type is {T T36000117_PCTy 3}. The port's connect state is {T T36000117_PCSt 4}. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.2.7.0.6.6) - (event [{e}]).	**CsPCause/Prob36000117** 1) Twisted ring error. 2) Local connection policy violation.
CsEvFormat/Event36000123 {d "%w- %d %m-, %Y - %T"} A port has exhibited elasticity buffer errors. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.2.7.0.6.7) - (event [{e}]).	**CsPCause/Prob3600011c** 1) A station may be transmitting frames that are too long. 2) A station may be using a clock that is out of tolerance.

Table 4-1. Events and Alarms

CsEvFormat/Event36000124 {d "%w- %d %m-, %Y - %T"} MAC has been inserted into the path. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.2.7.0.6.8) - (event [{e}]).	**No Probable cause message.**
CsEvFormat/Event36000125 {d "%w- %d %m-, %Y - %T"} Port {O 2} has moved to the {T T36000125_CurP 1} path. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.2.7.0.6.9) - (event [{e}]).	**No Probable cause message.**
CsEvFormat/Event36000126 {d "%w- %d %m-, %Y - %T"} A {T T3600011d_RING 1} station has either been moved, inserted, or removed from the ring, either by a software or a physical change. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.1.3.4.0.6.1) - (event [{e}]).	**No Probable cause message.**
CsEvFormat/Event36000127 {d "%w- %d %m-, %Y - %T"} The dual ring is wrapped at a concentrator. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.1.3.4.0.6.2) - (event [{e}]).	**CsPCause/Prob36000127** 1) The dual ring is wrapped at a concentrator (wrapA or wrapB). Note that this is a legal configuration and may be intentional.
CsEvFormat/Event36000128 {d "%w- %d %m-, %Y - %T"} A port on this concentrator was part of a trace. {t} (name - {m }). (Trap type: 1.3.6.1.4.1.45.1.3.4.0.6.3) - (event [{e}]).	**No Probable cause message.**

Chapter 5

Application Views

What Is in This Chapter

This chapter describes the Bay Networks BayStack Hub's device-specific applications listed below. The corresponding application model type is in parentheses.

- Stackable Ethernet Application (BSEnetApp)
- BayStach Repeater Application (BSEnetRptr)
- BayStack Common Application (BSCommonApp)

Application View

This view displays information on all applications supported by the device. Each application appears as an icon in the Application view. Access application-specific Model Information Views, Performance Views, and Detail Views from these icons. Depending on the specific application, various additional views are also available and discussed in this section.

Within the Application view, there are two special Edit menu options. These options interact with the device modeled and are as follows:

Poll Time
Allows you to configure the time, in seconds, when the SpectroSERVER polls a device and reads all the device attributes marked as POLLED.

Reconfigure
Polls the device to discover the applications supported by the firmware and reconfigures the Application view accordingly. Use this option to recover destroyed application icons.

Device Application View

This view shows the common and device-specific applications supported by this device and provides access to application-specific information.

For more information on *Accessing SPECTRUM Views from the Device Icon*, see Chapter 1, page 1-2, and *Accessing Device-Specific Submenus.*, page 1-5.

Figure 5-1 shows an example of an Application view in the Icon mode. Figure 5-2 shows an example of an Application view in the List mode.

To change the display mode, select **View** > **Mode** > **List** or **Icon**.

Figure 5-1. Device Application View (Icon Mode)

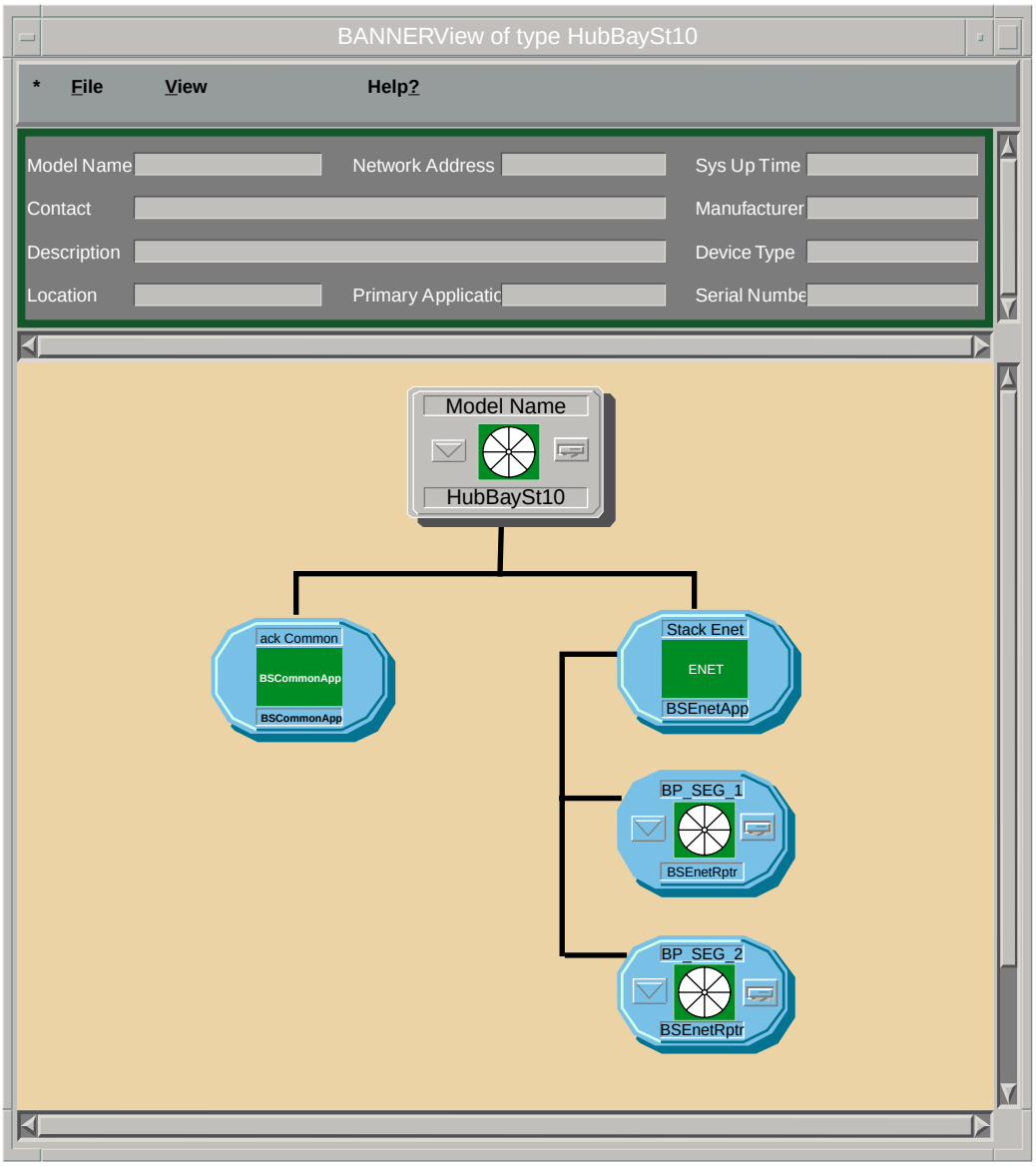
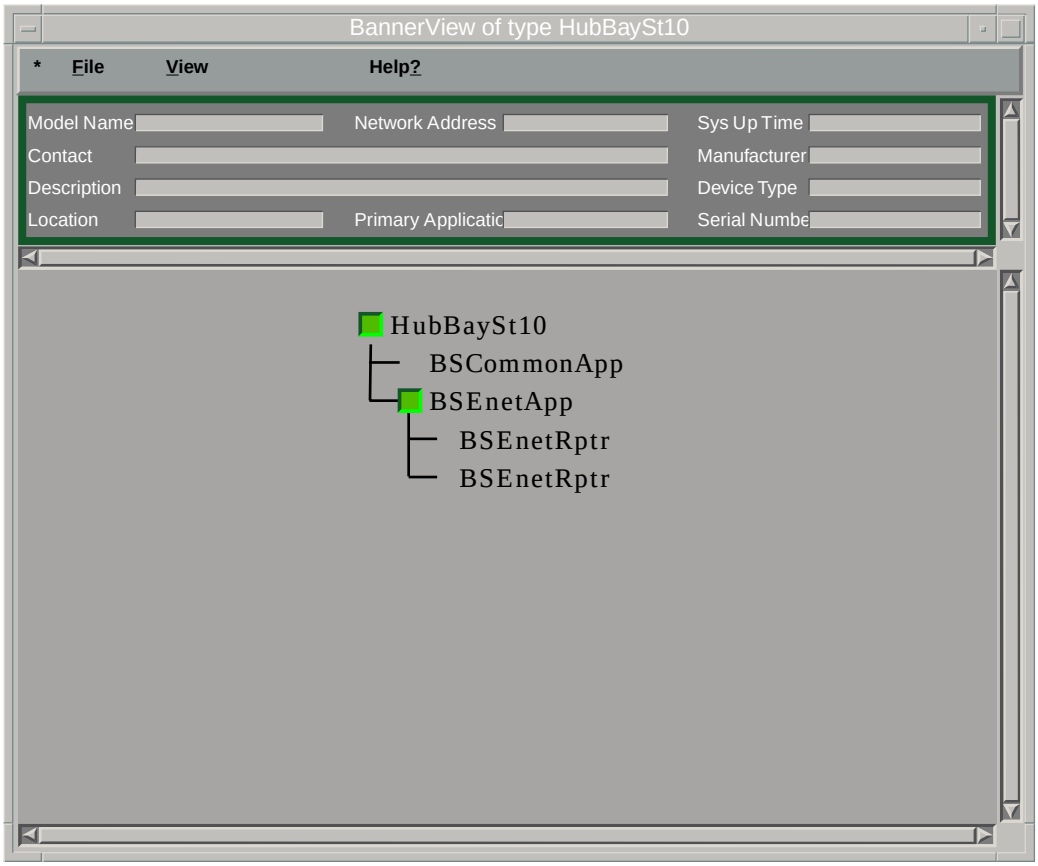


Figure 5-2. Device Application View (List Mode)



Stackable Ethernet Application

This application provides access to stackable ethernet functionality for this device. The model type for this application is BayStack Enet. Table 5-1 describes each of the application-specific Icon Subviews menu selections available for the Stackable ethernet application.

Table 5-1. BayStack ENET Icon Subviews Menu

Menu	Description
Redundancy Table	Opens the BayStack Ethernet Chassis Redundancy Table View, described in Chapter 2, page 2-5.
Model Information	For more information on the Model Information view, refer to ***SPECTRUM Views.***

BayStack Common Application

This application supplies three application specific views: Chassis Configuration, Chassis Group, and Model Information. Table 5-2 describes each Icon Subview menu option.

Table 5-2. BayStack Common Icon Subviews Menu

Menu	Description
Chassis Configuration	Opens the Chassis Configuration View, described in Chapter 3, page 3-1.
Chassis Group	Opens the Chassis View Group, described on page 5-5.
Model Information	Opens the Model Information View, refer to ***SPECTRUM Views***.

Chassis Group View

This view contains the Chassis Group Table which provides the following information:

Index
Shows the index for the Chassis Group Table.

Description
Displays a description of the Chassis Group.

Max Comps
The maximum number of components a group can have.

Num Comps
The actual number of components a group has.

Physical Changes
The number of physical changes made to the group components.

Last Change
The last time a component change was made to a group.

BayStack Repeater Application

This application is the Repeater Application for the device. Table 5-3 describes each Icon Subview menu selection for this application.

Table 5-3. BSEnetRptr Application Icon Subviews Menu

Menu	Description
Device	Opens the Logical Device View, described in Chapter 2, page 2-1.
DevTop	Opens the DevTop view, refer to ***SPECTRUM Views.***
Model Information	Opens the Model Information view, refer to ***SPECTRUM Views.***

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